



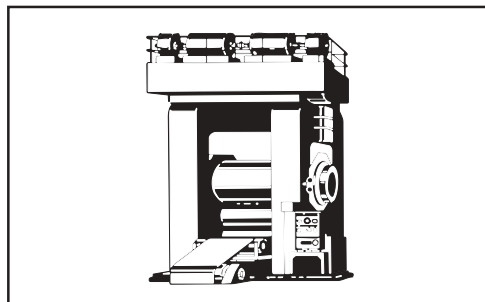
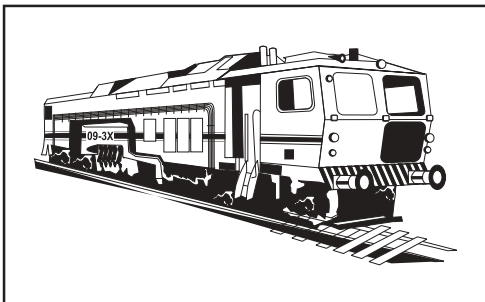
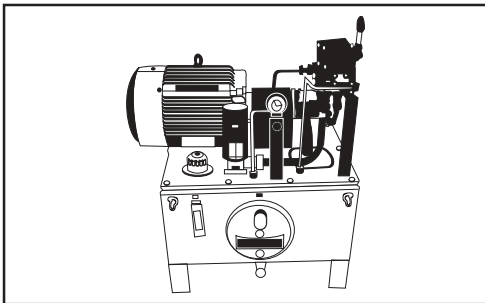
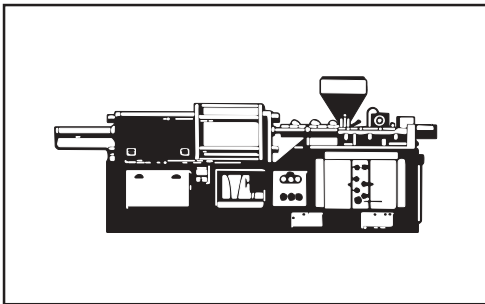
VELJAN

Service Information

SS4 - 00130

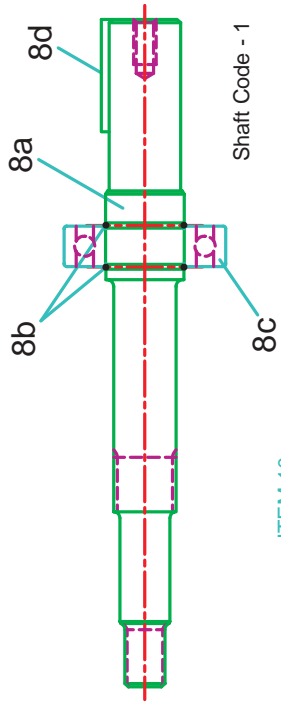
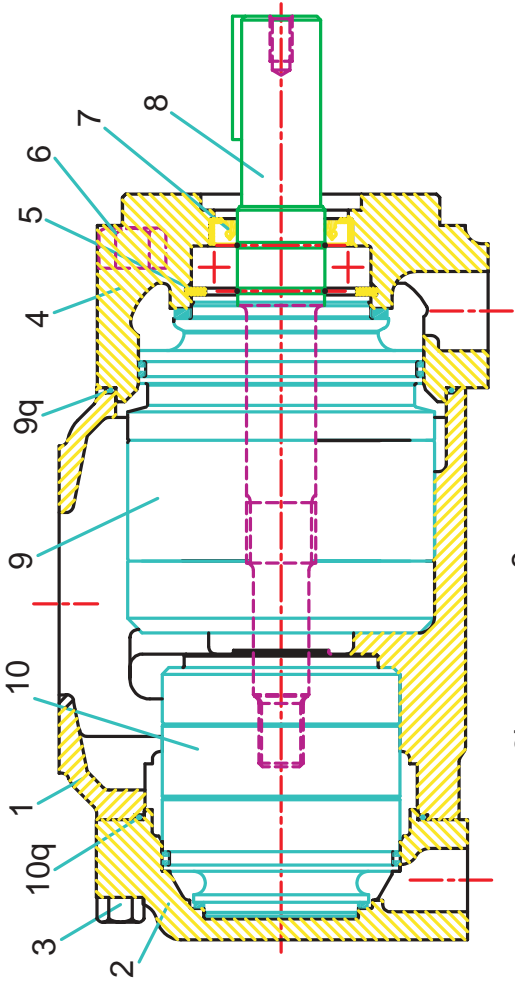
VT67DB

Double vane pump

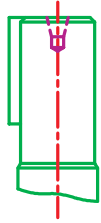


Mounting torque

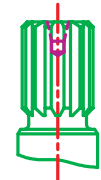
Item pos.	3	7
N-m	68	187
ft-lbs	50	138



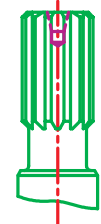
Shaft Code - 1



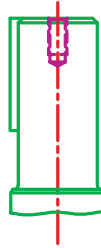
Shaft Code - 2



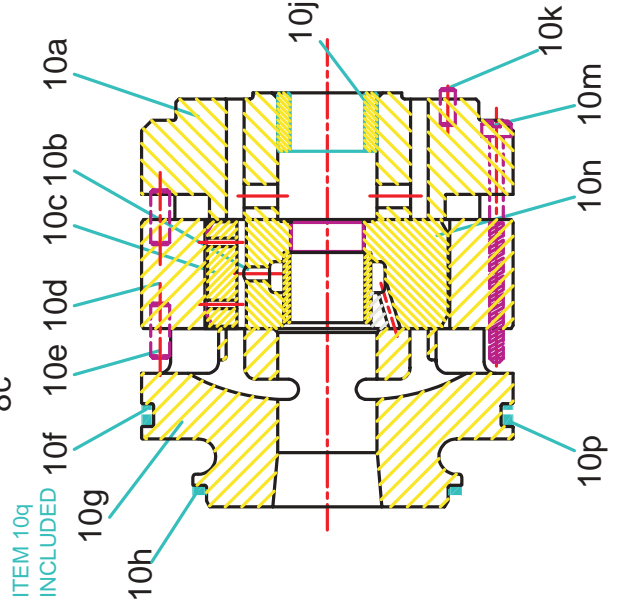
Shaft Code - 3



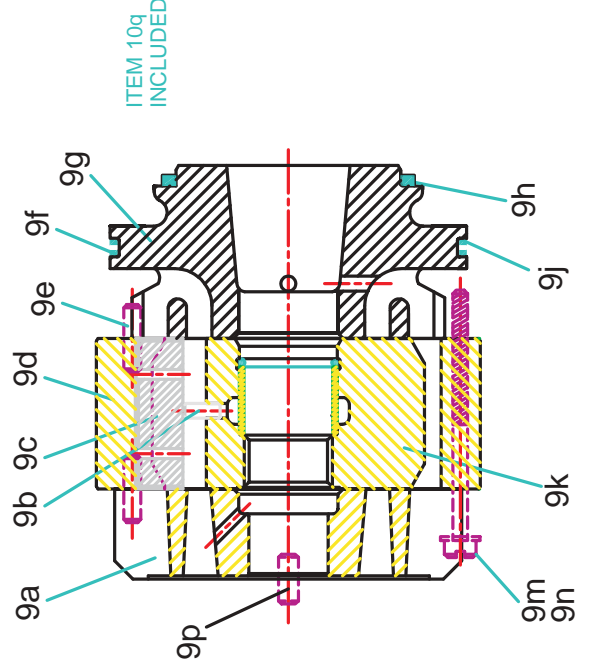
Shaft Code - 4



Shaft Code - 5



ITEM 10q
INCLUDED



ITEM 10q
INCLUDED

Item pos.	Description	Part No.		Qty
		VT67DB (Standard)	VT67DB (Bi-dir plates)	
1	Housing (UNC)	V034-48133	V034-48133	1
	Housing (Metric)	C-034-03065	C-034-03065	
2	End cap (UNC) (P2=3/4")	V034-66523	V034-66523	1
	End cap (METRIC) (P2=3/4")	H-034-66765	H-034-66765	
3	Mounting Screw	V306-40111	V306-40111	7
4	Mounting flange (UNC) (Shaft 1-2-3-4)	V034-48135	V034-48135	1
	Mounting flange (Metric) (Shaft 1-2-3-4)	C-034-03067	C-034-03067	
	Mounting flange (UNC) (Shaft - 5)	V034-66495	V034-66495	
	Mounting flange (Metric) (Shaft - 5)	H-034-66748	H-034-66748	
5	Retaining ring	V356-32283	V356-32283	1
6	Mounting Screw	V306-40156	V306-40156	4
7	Shaft seal (S1-0.7 bar) (Shaft 1-2-3-4)	V620-82062	V620-82062	1
	Shaft seal (S4-S5-7 bar) (Shaft 1-2-3-4)	V620-82066	V620-82066	
	Shaft seal (S1-0.7 bar) (Shaft - 5)	V620-82064	V620-82064	
	Shaft seal (S4-S5-7 bar) Shaft - 5)	V620-82072	V620-82072	
8	Shaft and bearing ass'y (Code-1)	VS14-42520	VS14-42520	1
	Shaft and bearing ass'y (Code-2)	VS14-42521	VS14-42521	
	Shaft and bearing ass'y (Code-3)	VS14-42518	VS14-42518	
	Shaft and bearing ass'y (Code-4)	VS14-42519	VS14-42519	
	Shaft and bearing ass'y (Code-5)	VS24-26206	VS24-26206	
8a	Shaft (Keyed) (Code-1)	V034-71363	V034-71363	1
	Shaft (Keyed) (Code-2)	V034-71364	V034-71364	
	Shaft (Splined) (Code-3)	V034-71361	V034-71361	
	Shaft (splined) (Code-4)	V034-71362	V034-71362	
	Shaft (Keyed) (Code-5)	V034-66578	V034-66578	
9b	Round section ring (Shaft 1-2-3-4)	V034-70853	V034-70853	2
	Round section ring (Shaft - 5)	V034-70853	V034-70853	1
9c	Ball bearing	V230-00207	V230-00207	1
9d	Key (Code -1 & 5)	V034-46754	V034-46754	1
	Key (Code -2)	V034-49676	V034-49676	
9	Cartridge assembly *14 C.W. (P1)	VS24-40791	C-S14-71684	1
	Cartridge assembly *14 C.C.W. (P1)	VS24-40792	C-S14-71685	
	Cartridge assembly *20 C.W. (P1)	VS24-26490	C-S14-71686	
	Cartridge assembly *20 C.C.W. (P1)	VS24-26491	C-S14-71687	
	Cartridge assembly *24 C.W. (P1)	VS24-25891	VS24-26580	
	Cartridge assembly *24 C.C.W. (P1)	VS24-25892	VS24-26581	
	Cartridge assembly *28 C.W. (P1)	VS24-10849	VS24-10158	
	Cartridge assembly *28 C.C.W. (P1)	VS24-10850	VS24-10159	
	Cartridge assembly *31 C.W. (P1)	VS24-10851	VS24-10160	
	Cartridge assembly *31 C.C.W. (P1)	VS24-10852	VS24-10161	
	Cartridge assembly *35 C.W. (P1)	VS24-10853	VS24-10162	
	Cartridge assembly *35 C.C.W. (P1)	VS24-10854	VS24-10163	
	Cartridge assembly *38 C.W. (P1)	VS24-10855	VS24-10164	
	Cartridge assembly *38 C.C.W. (P1)	VS24-10856	VS24-10165	
	Cartridge assembly *42 C.W. (P1)	VS24-10857	VS24-10166	
	Cartridge assembly *42 C.C.W. (P1)	VS24-10858	VS24-10167	
	Cartridge assembly *45 C.W. (P1)	VS24-10859	VS24-10168	
	Cartridge assembly *45 C.C.W. (P1)	VS24-10860	VS24-10169	
	Cartridge assembly *50 C.W. (P1)	VS24-40236	C-S14-71688	
	Cartridge assembly *50 C.C.W. (P1)	VS24-40237	C-S14-71689	
Cartridge assembly *61 C.W. (P1)	C-S14-71608	C-S14-71690		
Cartridge assembly *61 C.C.W. (P1)	C-S14-71609	C-S14-71691		
9a	Port plate - rear C.W.	V034-59810		1
	Port plate - rear C.C.W.	V034-59811		
	Port plate - rear Bi-dir		V034-59101	
9b	Pin vane holdout	V034-59130	V034-59130	10
9c	Vane	V034-53588	V034-53588	10
9d	Cam ring - 014	V034-66708	V034-66708	1
	Cam ring - 020	V034-66596	V034-66596	

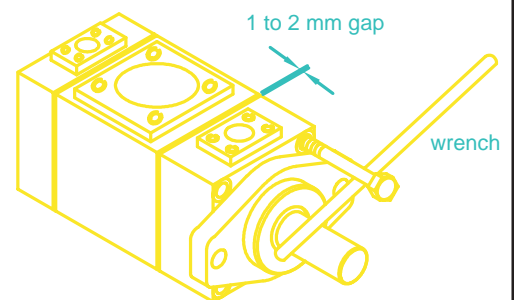
Item pos.	Description	Part No.		Qty
		VT67DB (Standard)	VT67DB (Bi-dir plates)	
	Cam ring - 024	V034-59294	V034-59294	
	Cam ring - 028	V034-59133	V034-59133	
	Cam ring - 031	V034-59135	V034-59135	
	Cam ring - 035	V034-59137	V034-59137	
	Cam ring - 038	V034-59139	V034-59139	
	Cam ring - 042	V034-59132	V034-59132	
	Cam ring - 045	V034-59131	V034-59131	
	Cam ring - 050	V034-66737	V034-66737	
	Cam ring - 061	V034-67127	V034-67127	
9e	Dowel pin	V324-21612	V324-21612	2
9f	Back-up ring	V618-15017	V618-15017	1
9g	Port plate - pressure C.W.	V034-59808		1
	Port plate - pressure C.C.W.	V034-59809		
	Port plate - pressure Bi-dir		V034-59057	
9h	Sq. section seal	V691-10232	V691-10232	1
9j	Sq. section seal	V691-10244	V691-10244	1
9k	Rotor-insert ass'y	VS24-10121	VS24-30018	1
9m	Screw	V317-10320	V317-10320	2
9n	Lockwasher internal tooth	V348-10010	V348-10010	2
9p	Dowel pin	V323-82004	V323-82004	1
9q	Sq. section seal	V671-10159	V671-10159	1
10	Cartridge assembly B02 C.W (P2)		VS24-51513	1
	Cartridge assembly B02 C.C.W (P2)		VS24-51514	
	Cartridge assembly B03 C.W (P2)		VS24-51515	
	Cartridge assembly B03 C.C.W (P2)		VS24-51516	
	Cartridge assembly B04 C.W (P2)		VS24-51617	
	Cartridge assembly B04 C.C.W (P2)		VS24-51518	
	Cartridge assembly B05 C.W (P2)		VS24-51519	
	Cartridge assembly B05 C.C.W (P2)		VS24-51520	
	Cartridge assembly B06 C.W (P2)		VS24-51521	
	Cartridge assembly B06 C.C.W (P2)		VS24-51522	
	Cartridge assembly B07 C.W (P2)		VS24-59972	
	Cartridge assembly B07 C.C.W (P2)		VS24-59973	
	Cartridge assembly B08 C.W (P2)		VS24-51523	
	Cartridge assembly B08 C.C.W (P2)		VS24-51524	
	Cartridge assembly B09 C.W (P2)		VS24-77376	
	Cartridge assembly B09 C.C.W (P2)		VS24-77377	
	Cartridge assembly B10 C.W (P2)		VS24-51525	
	Cartridge assembly B10 C.C.W (P2)		VS24-51526	
	Cartridge assembly B11 C.W (P2)		VS24-77378	
	Cartridge assembly B11 C.C.W (P2)		VS24-77379	
	Cartridge assembly B12 C.W (P2)		VS24-59017	
Cartridge assembly B12 C.C.W (P2)		VS24-59018		
Cartridge assembly B14 C.W (P2)		VS24-77380		
Cartridge assembly B14 C.C.W (P2)		VS24-77381		
Cartridge assembly B15 C.W (P2)		VS24-59019		
Cartridge assembly B15 C.C.W (P2)		VS24-59020		
10a	Port plate - rear Bi-dir		C-034-03220	1
10b	Pin vane holdout		H-034-66920	12
10c	Vane		H-034-66917	12
10d	Cam ring - B02		H-034-66909	1
	Cam ring - B03		H-034-66910	
	Cam ring - B04		H-034-66911	
	Cam ring - B05		H-034-66912	
	Cam ring - B06		H-034-66913	
	Cam ring - B07		H-034-67063	
	Cam ring - B08		H-034-66914	
	Cam ring - B09		H-034-67383	
	Cam ring - B10		H-034-66915	
	Cam ring - B11		H-034-64461	

Item pos.	Description	Part No.		Qty
		VT67DB (Standard)	VT67DB (Bi-dir plates)	
	Cam ring - B12		C-034-03219	
	Cam ring - B14		H-034-67409	
	Cam ring - B15		C-034-03218	
10e	Dowel pin		V324-21208	2
10f	Back-up ring		V618-15016	1
10g	Port plate - pressure Bi-dir		H-034-66923	1
10h	Sq. section seal		V691-10229	1
10j	Bush		V034-70868	1
10k	Dowel pin		V323-82010	1
10m	Screw		V317-06266	2
10n	Rotor-insert ass'y		H-S24-49820	1
10p	Sq. section seal		V691-10238	1
10q	Sq. section seal		V671-10156	1
7, 9f	Seal kit (S1-0.7 bar)		VS24-10170	1
9j, 9h	Seal kit (S4-7 bar)		VS24-10170-4	
9q, 10f	Seal kit (S5-7 bar)		VS24-10170-5	
10p, 10h				
10q				
9a	Port plate rear ass'y C.W - P1	VS24-10831		1
9p	Port plate rear ass'y C.C.W - P1	VS24-10832		
	Port plate rear ass'y Bi-dir - P1		VS24-10887	
10a	Port plate rear and bush ass'y - P2		VS24-51527	1
10k				
10j				

* 0 - Standard
B - Bi-directional plates

To change porting position, follow the steps below:

1. Secure pump and remove 4 bolts from mounting flange. Move the mounting flange 1 to 2 mm away from housing. Insert one bolt halfway to mounting flange. Install a wrench between the shaft and bolt and turn in the desired way, so that the required position of P1 port with respect to Suction is obtained. Reinstall the bolts and tighten to corresponding mounting torque as provided on page 2.
2. Follow similar procedure for changing P2 position. Use wrench between two bolts placed diagonally opposite.



Instruction : Do not remove mounting flange/end cap completely from the housing but only just 1 to 2 mm to avoid the cartridge pin to move out from the housing dowel pin hole. Make sure no piece of paint enters into the gap to avoid leakage.

If it is difficult to turn mounting flange/end cap put some hydraulic oil in to the pressure port to lubricate the pressure port seals.

MODEL CODE

Series

VT67DB series-**SAE B 2 bolts**
Mounting flange J744c

Use for severe duty shaft only

Cam ring	Displacement in ³ /rev (cm ³ /rev)	Cam ring	Displacement in ³ /rev (cm ³ /rev)
014/B14	= 2.90 (47.6)	035/B35	= 6.80 (111.0)
017/B17	= 3.55 (58.2)	038/B38	= 7.30 (120.3)
020/B20	= 4.00 (66.0)	042/B42	= 8.30 (136.0)
024/B24	= 4.80 (79.5)	045/B45	= 8.90 (145.7)
028/B28	= 5.50 (89.7)	050/B50	= 9.64 (158.0)
031/B31	= 6.00 (98.3)	061/B61	= 11.62 (190.5)

Cam ring	Displacement in ³ /rev (cm ³ /rev)	Cam ring	Displacement in ³ /rev (cm ³ /rev)
B02	= 0.35 (5.7)	B09	= 1.71 (28.0)
B03	= 0.60 (9.8)	B10	= 1.94 (31.8)
B04	= 0.78 (12.8)	B11	= 2.13 (34.9)
B05	= 0.97 (15.9)	B12	= 2.50 (40.9)
B06	= 1.21 (19.8)	B14	= 2.75 (45.1)
B07	= 1.37 (22.5)	B15	= 3.05 (50.0)
B08	= 1.52 (24.9)		

Type of Shaft

- VT67DB**
- 1 = Keyed (SAE -C)
 - 2 = Keyed (no SAE)
 - 3 = Splined (SAE -C)
 - 4 = Splined (no-SAE)

- VT67DBW**
- 5 = Keyed (no SAE)

VT67DB W - B42 - B10 - 1 R 00 - A 1 - M1 - ..

Modification

Port connection variables
SAE 4 bolt flange (J518c)

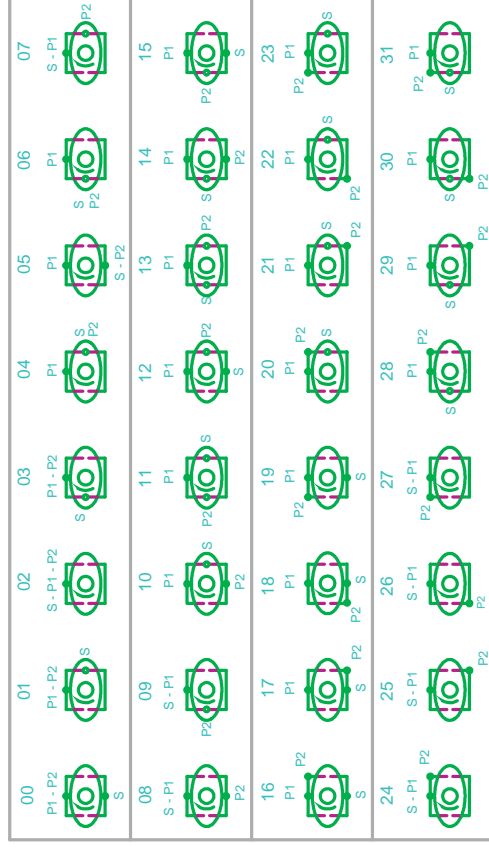
P1=1 ¼" P2=3/4" S=3"	
UNC	METRIC
11	M1

Seal class

- 1 = S1 - BUNA N
- 4 = S4 - EPDM
- 5 = S5 - VITON

Design letter

Porting combination : (00 = Standard)



Direction of rotation

- R = Clockwise
- L = Counter - clockwise

Print	---
Replace	---
Revision	---